OIPE
IAP25
NOV 07 2005
PATENT & TRADEMARK OFFICE

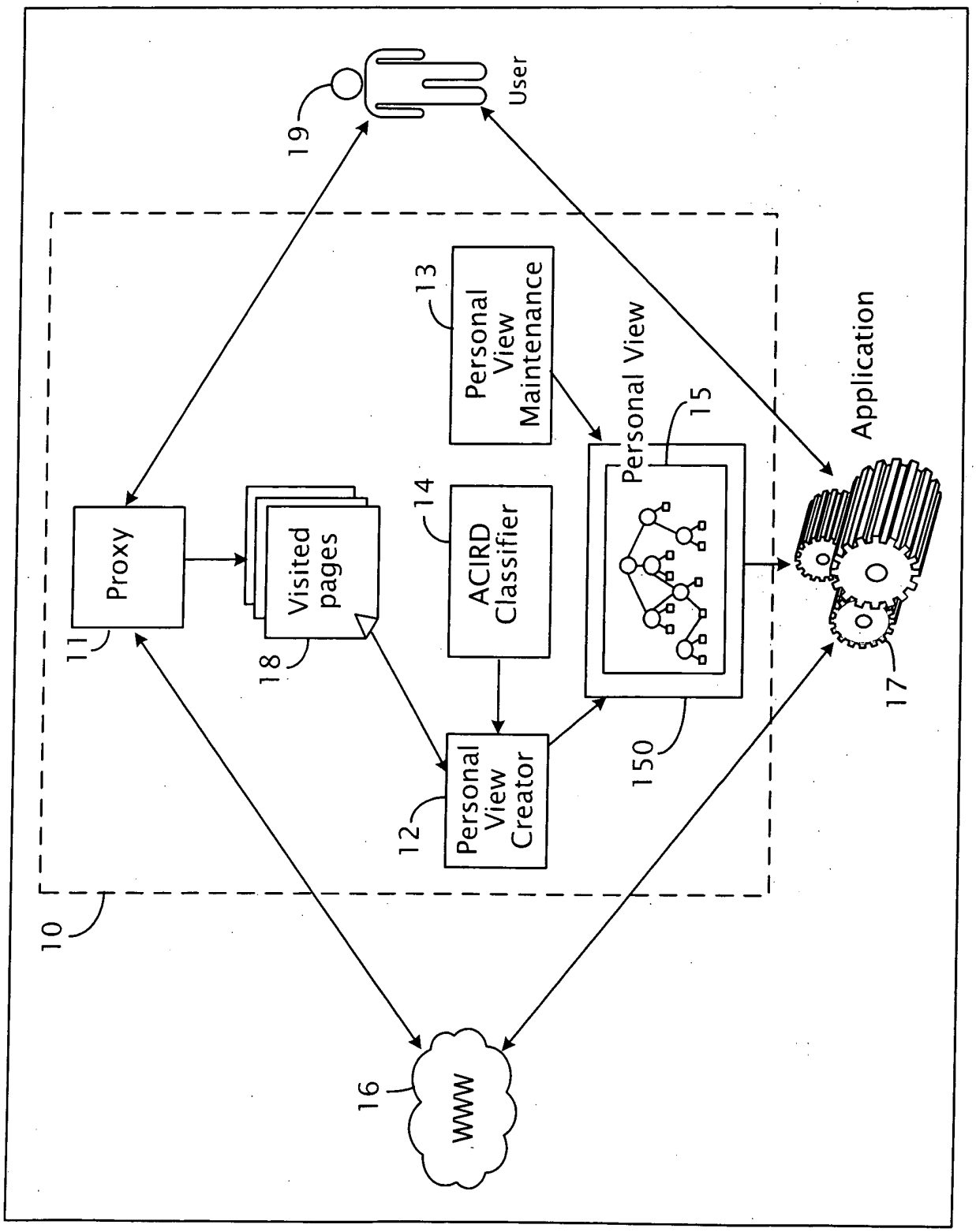

FIG. 1

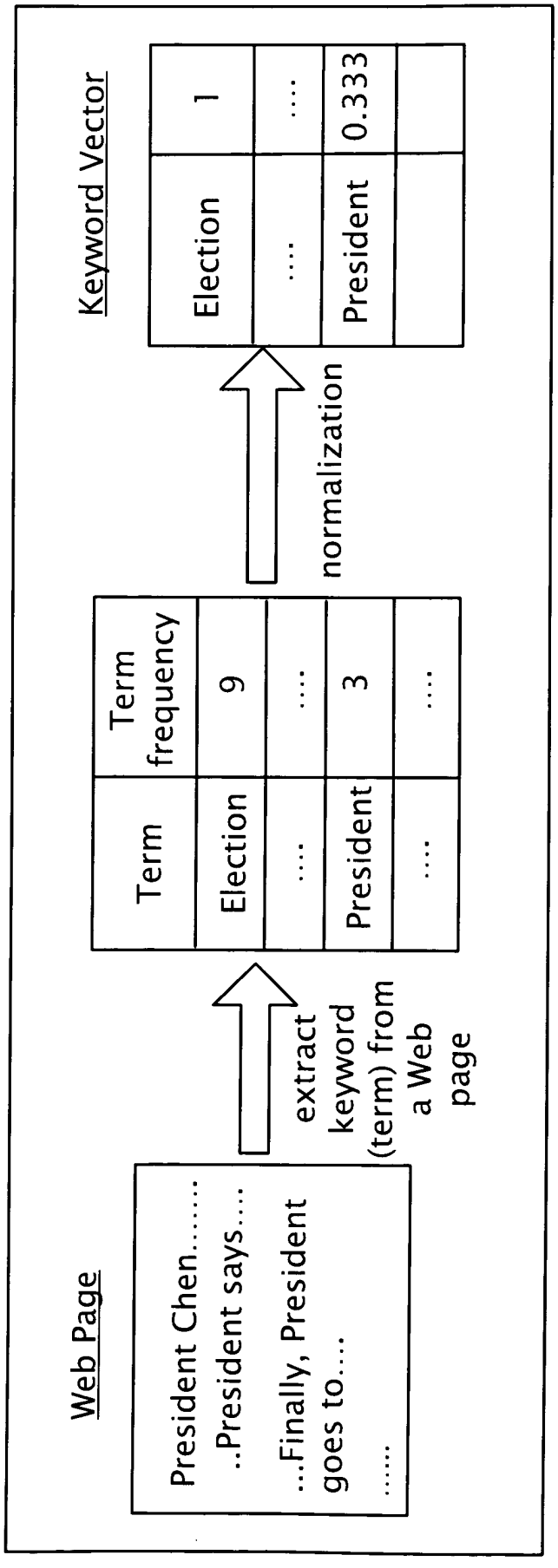
Web Page
President Chen.....
..President says....
...Finally, President goes to....
.....
extract keyword (term) from a Web page
Term
Term frequency
Election
9
....
....
President
3
....
....
normalization
Keyword Vector
Election
1
....
....
President
0.333

FIG. 2

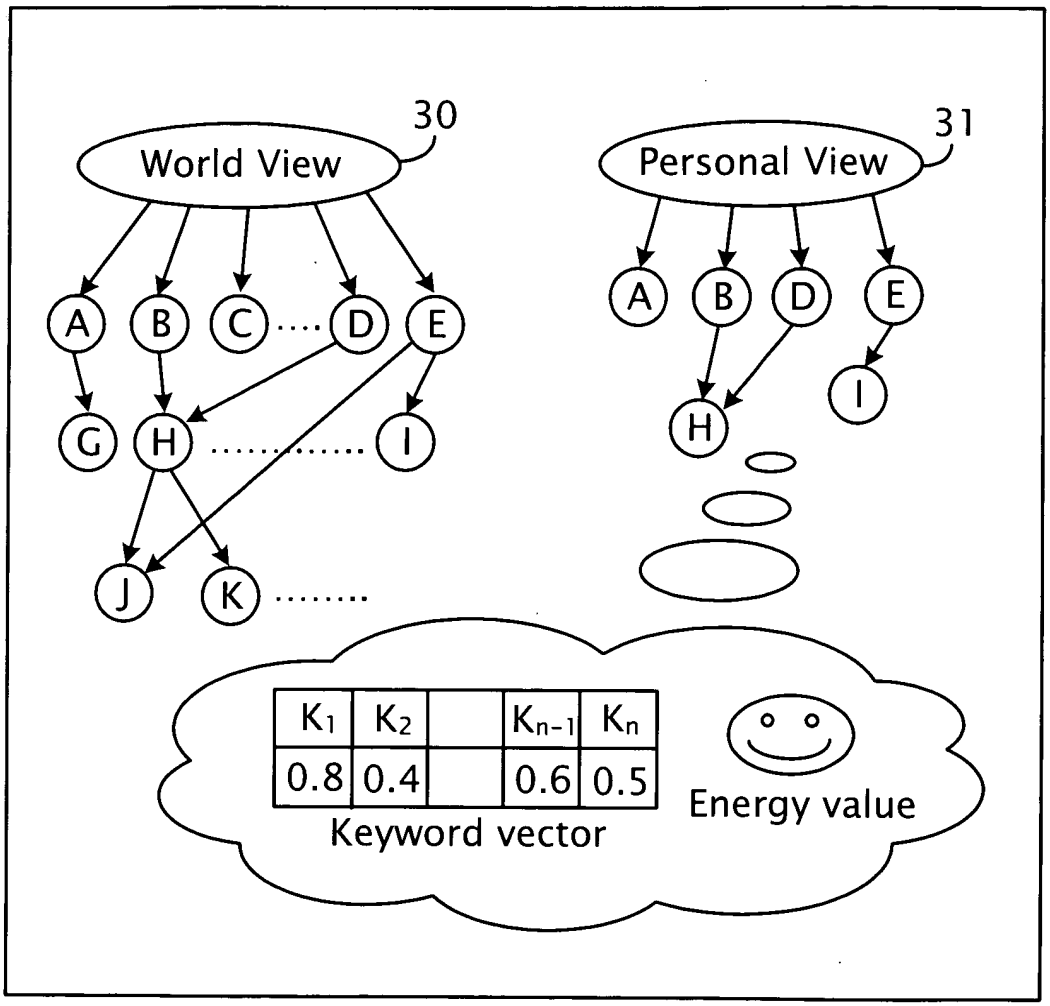
30
World View
31
Personal View
A
B
C
D
E
G
H
I
J
K
A
B
D
E
H
I
K1
K2
Kn-1
Kn
0.8
0.4
0.6
0.5
Keyword vector
Energy value

FIG. 3

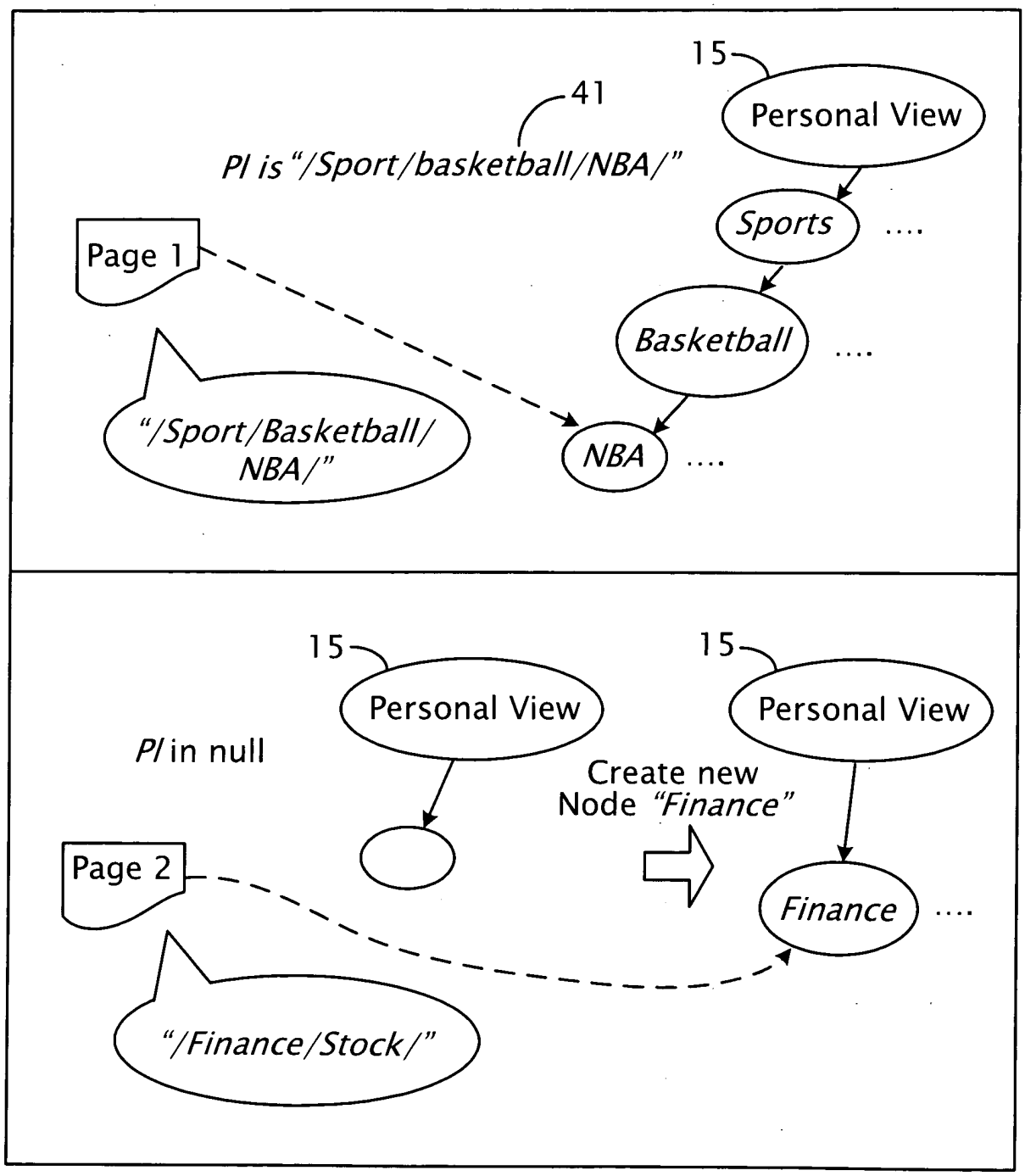
15
41
Personal View
PI is "/Sport/basketball/NBA/"
Sports ....
Page 1
Basketball ....
"/Sport/Basketball/NBA/"
NBA ....
15
15
Personal View
Personal View
PI in null
Create new Node "Finance"
Page 2
Finance ....
"/Finance/Stock/"

FIG. 4

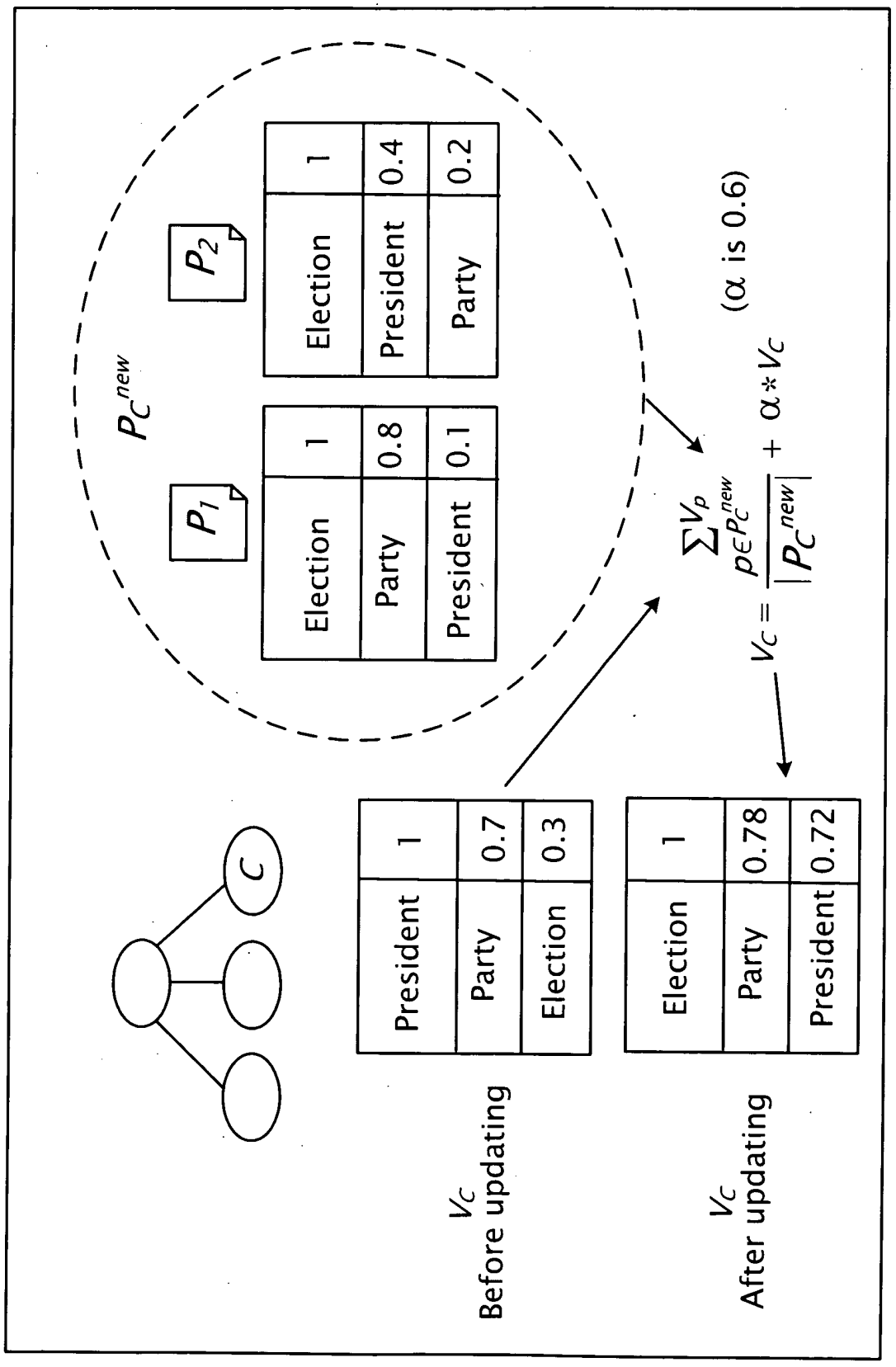
P_C^{new}
P_1
Election 1
Party 0.8
President 0.1
P_2
Election 1
President 0.4
Party 0.2
$V_C = \frac{\sum_{p \in P_C^{new}} V_p}{|P_C^{new}|} + \alpha * V_C$
(α is 0.6)
C
President 1
Party 0.7
Election 0.3
V_C Before updating
Election 1
Party 0.78
President 0.72
V_C After updating

FIG. 5

61

For each category c in the *Personal View*

While $(E_c > threshold)$

$c_{child} = ARGMAX_{c_{child} \text{ in } c} \{SplitGain(c, c_{child})\}$

Create the category c_{child} in the *Personal View;*

Update the energy value of c;

Calculate the energy value of c_{child};

Calculate the keyword vector of c_{child};

Update the keyword vector of c;

End While;

End For;

FIG. 6A

62

For each category c in the *personal view*

$E_c = E_c - \beta$

If $E_c <= th$ then

Update the keyword vector of c's parent;

Remove category c from the personal view;

End If;

End For;

FIG. 6B